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ABSTRACT

This learning activity packet on shop safety is one of three (see note) intended for special needs (handicapped and disadvantaged) learners. Its objective is for the student to learn general safety rules for working in a shop. Contents include a source guide that provides the behavioral objective and lesson plan, pre-test, supplementary lesson information, seven worksheets, self-test, and evaluation. (Sources for audiovisual aids referred to in the lesson plan are not provided.) (YLB)

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SHOP SAFETY

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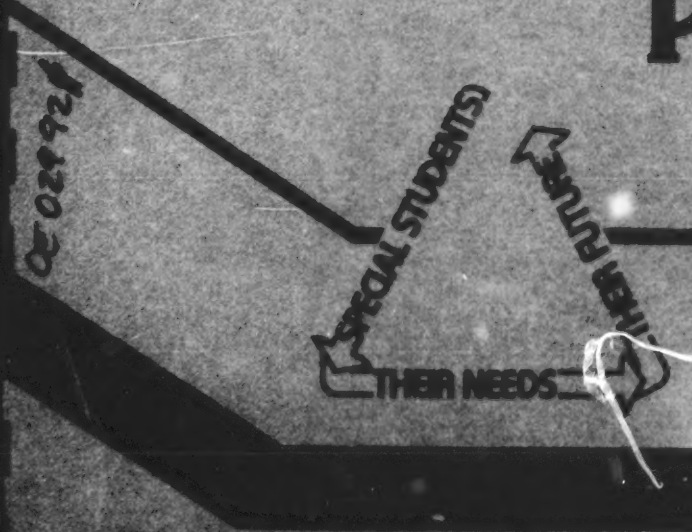
Technical Assistance and Dissemination System: Illinois Special Needs Populations



U.S. DEPARTMENT OF EDUCATION

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SHOP SAFETY

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PRETEST

Answer the following questions. Write out the words "True" or "False" in the blanks at the left of each question.

_____1. When you work in the shop keep you shirt tucked in your jeans.

_____2. Buy a pair of sun glasses to wear in the shop.

_____3. Hurry to finish your work when the bell rings.

_____4. Wipe up spilled oil or grease immediately.

_____5. A little good natured shoving is O.K.

_____6. If the handle is loose on a hammer put it back in the tool box without using it.

_____7. Know where the fire extinguisher is located.

_____8. Store flammable materials in a wooden cabinet.

_____9. Never leave the shop alone if you are bleeding.

Name_____

SOURCE GUIDE

BEHAVIORAL OBJECTIVE: Given information about general shop safety rules the student will answer ten True or False questions covering these safety rules with 100% accuracy.

PRETEST: The test is designed to see how much you already know about general shop safety rules.

LEARNING ACTIVITIES:

1. Study the supplementary sheet
2. Listen to cassette tape "General Shop Safety Rules"
3. Complete worksheet #1
4. View the VCR tape "General Shop Safety Rules"
5. Complete worksheets 2, 3, 4, and 5
6. View the transparencies "Shop Safety Rules"
7. Complete worksheets #6 and 7
8. Group Activity
9. Individual tutoring

SELF TEST: This test is designed to give you practice before taking the final evaluation.

Evaluation: This is the final test in the packet. Be sure to follow the directions carefully.

SUPPLEMENTARY SHEET

GENERAL SHOP SAFETY RULES

Safety is of first importance in any shop. Safety involves many thirgs. It means having tools and equipment in good operating condition with proper guards in place at all times. It means that students who use the shop must be properly trained in safe operating procedures. Most of all, it means the use of common sense and good judgement by students who are alert and who really believe in safety.

Statistics show that 85 percent of school and industrial plant accidents are due to human factors against which mechanical devices cannot guard. Thus, guards and other safety devices afford only about 15 percent protection against accidents. Most accidents result from someone's thoughtlessness, carelessness, or lack of consideration for others.

Safety depends upon YOU; YOU must believe in it; YOU must learn and practice safe rules of conduct in the shop; YOU must sell others on the idea of safe operation at all times.

PROPER DRESS IN THE SHOP

Wear appropriate clothing in the shop. Avoid loose fitting or ragged clothing. When working with power equipment, remove your tie, roll your sleeves above the elbows, and tuck your shirt in your trousers.

Keep hair cut to avoid hazards when working in the shop.

Wear safety goggles while working in the shop. Safety goggles protect the eyes from injuries caused by small particles, splashed acids, etc.

PROPER WORK HABITS IN THE SHOP

Avoid HURRY. Plan your work so you will have plenty of time to finish before clean up time. A hasty operator cannot be a careful operator.

Keep busy during the entire period in the shop. Plan your work so you are busy during the shop period. Do not bother another student's project unless you have been so assigned by your instructor.

Refrain from loud talking or shouting. The shop is a teaching laboratory and unnecessary noise is distracting. Talk in a low tone and avoid shouting.

Do not leave the shop without the instructor's permission. The instructor is responsible for all members of the class during the time they are assigned to him/her. Do not leave the class without first checking with your instructor.

Do not talk to another student while he is operating power equipment. Operating a machine is a full time job. If necessary to talk, signal him and wait until he has turned off the machine.

Do not start or stop machines unless you are the operator. The operator of a machine must be in full control at all times. Some operations require a helper, but the helper should not start or stop the machine or control its operation in any way. All stationary power tools should have a working safety

zone. It may have lines plainly marked encircling the power tool. During the operation of the power tool, only the operator or the operator and his/her assistant should be within the safety zone.

Do not engage in horseplay, scuffling, or pushing while in the shop. Any student who, by his actions in the shop, becomes a hazard to the safety of himself/herself or his/her fellow students, should not be permitted to operate equipment. In extreme cases, he/she may not be permitted to continue as a member of the class.

Clean the shop before leaving it. When the warning bell rings, all tools should be returned to their proper storage place and work areas cleaned up before the class is dismissed. Spilled oil or grease should be cleaned up promptly as it may cause others to slip and fall. Accumulations of dirt, sawdust, and trash create a fire hazard as well as an accident hazard.

Report all defective equipment to your instructor. Turn off any motor or appliance that does not seem to be operating properly. Turn off the motor if it seems to be heating above normal operating temperature. Equipment must be kept in good condition to be safe. Cutting tools must be kept sharp, handles tight, and guards in place on grinders, saws, and other power tools. Equipment that is not in good operating condition should be labled "OUT OF ORDER" and not used until it is repaired.

THINK. Most accidents are caused by thoughtlessness. When in doubt about the correct safety procedure, ask your instructor.

PROPER FIRE PROTECTION IN THE SHOP

Know the location of fire extinguishers. Learn the types of fire extinguishers that are available in the shop and correct type to use on each class of fires.

Know the location of the fire blanket. The fire blanket should be available to the welding area for emergency use to extinguish clothing fire.

Always check the area for flammable materials before lighting torches or turning on welders.

Store paint, lacquer, and other flammable material in metal cabinets.

Use only safe solvents for cleaning. Gasoline should never be used for cleaning purposes because of the danger of fire explosion.

PROPER FIRST-AID IN THE SHOP.

Report all injuries, including minor cuts, to your instructor. Infections can develop wherever the skin has been broken or cut. Use first-aid materials and if in any doubt, consult a doctor or nurse. No student who has had an accident which caused the flow of blood should leave the shop alone.

Know the location of the first-aid cabinet. The standard items of first-aid supplies should be kept in a first-aid cabinet in the shop.

WORKSHEET I

WHAT TO DO: Complete the following outline using Supplementary Sheet "General Shop Safety Rules".

I. Introduction

A. Safety is of _____ importance in the shop.

1. Safety means having tools and equipment in good _____ _____.

a. Guards must be _____.

2. Safety means students must be _____ _____.

in operating procedures.

3. Safety means common _____ and good _____.

B. Most accidents are caused by _____, _____ or _____ of _____ for others.

C. Safety depends upon _____.

II. Proper Dress in the Shop

A. Wear the right kinds of _____ in the shop.

1. Don't wear loose _____ or ragged _____.

2. Take off your _____.

3. Roll up your _____ above your elbows.

4. Tuck your _____ in your pants.

B. Keep your _____ cut.

C. Wear safety _____ in the shop.

III. Proper Work Habits in the Shop.

A. Don't _____.

B. Keep _____the whole shop period.

1. Don't _____ other students.

2. Don't work on other students _____unless your instructor says it is O.K.

C. Don't talk_____or_____.

D. Don't leave the _____unless the instructors say it is O.K.

E. Don't talk to another student while he is operating _____ _____.

F. Don't _____or_____a machine unless you are the operator.

G. Don't engage in _____,_____or_____.

H. Clean the _____before you leave.

I. Report all _____ _____to the instructor.

IV. Proper Fire Protection in the Shop

A. Know the location of the _____ _____.

B. Know the location of the _____ _____.

C. Check the area for _____ _____before lighting torches or welders.

D. Store _____ _____ and _____ _____in metal cabinets.

E. Use _____ _____for cleaning.

V. Proper First-Aid in the Shop

A. Report all _____to the instructor.

1. Report _____cuts.

2. No student leaves the shop _____if he is bleeding.

B. Know the location of the_____ _____.

WORKSHEET 2

WHAT TO DO: After viewing the VCR Tape complete the following worksheet. In column one of this worksheet list each wrong act committed. In column two of this worksheet list the General Shop Safety Rule he should have followed.

1	2

WORKSHEET 3

WHAT TO DO: Using the Supplementary Sheet "General Shop Safety Rules" list the safety rules under each of the following categories:

1. Proper Dress in the Shop

    a.

    b.

    c.

2. Proper Work Habits in the Shop

    a.

    b.

    c.

    d.

    e.

    f.

    g.

    h.

    i.

3. Proper Fire Protection in the Shop

    a.

    b.

    c.

    d.

    e.

4. Proper First-Aid in the Shop

    a.

    b.

WORKSHEET 4

WHAT TO DO: Ask your shop teacher if you may observe a shop class. List the safety rules which are followed and those which are not followed. Bring your list to class. We will talk about them.

WORKSHEET 5

WHAT TO DO: Make a drawing which shows as many of the safety rules as possible. When you have finished list the safety rules you have shown.

WORKSHEET 6

WHAT TO DO: In case of an emergency such as a fire or an accident each student should know what to do. Make a drawing of the shop showing the location of the following items:

a. Door

b. Hallways

c. Fire extinguishers

d. Fire blankets

e. First-aid cabinet

WORKSHEET 7

WHAT TO DO: Make a Shop Safety Poster illustrating the rules you have learned. This poster is to be hung in the shop.

SELF TEST

Name_____

Date_____

Directions: Answer each question either True or False:

_____1. It is the responsibility of each student to learn to work in a safe manner.

_____2. Such items as loose neckties, loose sleeves, and loose aprons must be secured or removed before operating a machine.

_____3. When "clean up" time is announced, hurry and get your work finished.

_____4. Students should not operate a machine unless the instructor is in the shop.

_____5. Students, not using proper safety precautions, should not be permitted to operate the equipment.

_____6. Noninterference with others is a good safety rule.

_____7. No student, who has had an accident which has caused the blood to flow should leave the classroom alone.

_____8. Do you know the location of the fire extinguishers in your shop? (yes or no)

_____9. Good natured scuffling, pushing, and horseplay in the shop can cause a serious accident.

_____10. Any student not operating a machine should stay out of the machine area.

EVALUATION

Name: _____

Date: _____

Directions: Answer each question either True or False

_____1. It is the responsibility of each student to learn to work in a safe manner.

_____2. Such items as loose neckties, loose sleeves, and loose aprons must be secured or removed before operating a machine.

_____3. When "clean up" time is announced, hurry and get your work finished.

_____4. Students should not operate a machine unless the instructor is in the shop.

_____5. Students, not using proper safety precautions, should not be permitted to operate the equipment.

_____6. Noninterference with others is a good safety rule.

_____7. No student who has had an accident which has caused the blood to flow should leave the classroom alone.

_____8. Do you know the location of the fire extinguishers in your shop? (yes or no)

_____9. Good natured scuffling, pushing, and horseplay in the shop can cause a serious accident.

_____10. Any student not operating a machine should stay out of the shop machine area.